



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,890	05/16/2006	Daejoon Cha	VT7-001US	7303
959 7590 08/22/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER CASCA, FRED A	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 08/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/544,890	CHA ET AL.	
	Examiner	Art Unit	
	Fred A. Casca	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/4/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/4/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 1-15 are objected to because in claim 1, line 8 and in claim 12, line 3, acronym (LBS) is used without prior description. The phrase "location based Services" needs to be inserted prior to using "LBS".

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16-33 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is insufficient explanation of the term "IP-801-1". The term "IP-801-1" is not a LBS standard known in the art. A proper explanation of the term "IP-801-1" is required.

Further, claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is insufficient explanation of the term "information on GPS satellite is distinctively indicated with different color, text or pattern on a screen displaying more than

Art Unit: 2617

one concentric circles and 4 directional intersections, the concentric circles consecutively indicating angles ranging from 0 degree to 90 degrees”.

Further, claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is insufficient explanation of the term “WGS (World Geodetic System)-84”.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-6, 9-12, 14-25, and 27-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Richton (US 6,650,902 B1).

Referring to claim 1, Richton discloses a system for monitoring performance of a position determination of a mobile communication terminal by using a wireless network and an A(Assisted)-GPS (abstract, Figure 1-2 and col. 1, lines 40-55, “GPS”), the system comprising the mobile communication terminal equipped with a GPS module for picking up GPS radio wave containing a navigation data from a GPS satellite and transmitting the navigation data to the wireless network (Figures 1-2, col. 1, lines 40-55);

a test device, connected to the mobile communication terminal through wired/radio link, for being loaded with and running a LBS wireless network analysis program (Figure 2-3, “location based preference server”, “location determination server”, “location based controller”), wherein the LBS wireless network analysis program gathers, analyzes and processes data pertinent to the position determination and classifies processed data by at least one classification reference and displays classified data in the format of text or graph (Figures 2-5, “221”, col. 2, lines 40-67, col. 9, lines 50-67, “longitude”, “latitude”); and a position determination server for receiving the navigation data from the wireless network, converting the navigation data into longitude and latitude coordinate values, transmitting the longitude and latitude coordinate values to the mobile communication terminal and performs transmission and reception of the data pertinent to the position determination (Figures 2-7, “221”, col. 2, lines 40-67, col. 9, lines 50-67, “longitude”, “latitude”).

Referring to claim 3, Richton discloses the system of claim 2, wherein the LBS wireless network communication network analyzes the LBS message and consequently indicates the time information of transmission or reception of the LBS message, the name of the LBS message, and a type of message (Figures 2-7, “221”, col. 2, lines 40-67, col. 9, lines 50-67), and wherein the type of message is whether the LBS message is a forward channel message, a reverse channel message, a request message or a response message (Figures 2-7 and corresponding columns, note that a LBS message is inherently either forward link or reverse link).

Referring to claim 4, Richton discloses the the system of claim 3, wherein the name of the LBS message is one of "Request MS Information", "Request Pilot Phase Measurement", "Provide MS Information", "Provide Pilot Phase Measurement", "Request Pseudorange Measurement", "Provide Pseudorange Measurement", "Provide GPS Acquisition Assistance", "Provide GPS Sensitivity Assistance", "Request Location response" (Figures 2-7 and corresponding columns).

Referring to claim 5, Richton discloses the system of claim 1, wherein the LBS wireless network analysis program analyzes and displays information on the GPS satellite, wherein the information on the GPS satellites is more than one out of an azimuth angle, an elevation angle, a total number of the GPS satellites and an identification number of each satellite included in a "Provide GPS Acquisition" message (Figures 2-7, "221", col. 2,lines 40-67, col. 9,lines 50-67).

Referring to claim 6, Richton discloses the system of claim 1, wherein the LBS wireless communication analysis program analyzes and displays information on the GPS satellite, wherein the information on the GPS satellite is more than one out of a total number of the GPS satellites and an identification number of each satellite included in a "Provide Pseudorange Measurement" message (Figures 2-7, "221", col. 2,lines 40-67, col. 9,lines 50-67).

Referring to claim 9, Richton discloses the system of claim 1, wherein the mobile communication terminal communicates with the test device through an infra-red communication link, Bluetooth communication link or a radio frequency link (Figures 1-2, note that cellular is radio).

Referring to claim 10, Richton discloses the system of claim 1, wherein the mobile communication terminal exchanges the data pertinent to the position determination with the position determination server through a TCP/IP(Transmission Control Protocol/Internet Protocol) link (Fig. 3, "Internet").

Referring to claim 11, Richton disclose the system of claim 1, wherein the mobile communication terminal is one out of a PDA, a cellular phone, a PCS(Personal Communication Service) phone, a hand-held PC, a GSM(Global System for Mobile) phone, a W-CDMA phone, an EV-DO phone and a MBS(Mobile Broadband System) phone (Figures 1-2, col. 1, lines 35-50, "cell", note that a cell inherently has a base station and cell phone).

Referring to claim 12, claim 12 defines an method reciting features analogous to the features of claim 1 (as rejected above). Thus, Richton discloses all elements of claims 12 (please see the rejection of claim 1 above).

Referring to claim 14, Richton disclose the method of claim 12, wherein at step (a), the test device acquires the LBS messages from the mobile communication terminal through wired and/or radio link (Figures 2-7).

Referring to claim 15, Richton disclose the method of claim 12, wherein the receiving, analyzing, processing and displaying are preformed by a LBS wireless network analysis program loaded in the test device (Figures 2-7,).

Referring to claim 16, claim 16 defines a medium reciting features analogous to the features of claim 1 (as rejected above). Thus, Richton discloses all elements of claims 16 (please see the rejection of claim 1 above).

Referring to claims 17-24 and 27-32, claims 17-25 and 27-32 define a medium reciting features analogous to the features of claim 3-11 (as rejected above). Thus, Richton discloses all elements of claims 16-25, 27-32 (please see the rejection of claim 3-11 above).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richton (US 6,650,902 B1).

Richton discloses the storage medium of claim 26. Richton fails to specifically disclose mapping data is made in the format of WGS (World Geodetic System)-84, as claimed by applicant.

It would have been an obvious design choice to design the mapping of data in any format that the applicant has chosen since the applicant has not described any advantages of the WGS

Art Unit: 2617

system, thus the design of the mapping system being in any other mapping system would have provided the same information as by WGS system.

7. Claims 2, 7-8, 13, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richton (US 6,650,902 B1) in view of well known prior art (MPEP 2144.03).

Referring to claim 2, Richton discloses the system of claim 1, wherein the data pertinent to the position determination is a LBS message that the mobile communication terminal acquires from the position determination server (Figures 2-7, "221", col. 2, lines 40-67, col. 9, lines 50-67).

Richton does not disclose the LBS message being defined in the IS-801-1 standard.

The examiner takes official notice of the fact that IS-801-1 standard is well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Richton as claimed for the purpose of providing a more efficient and standardized and location service system.

Referring to claim 7, Richton discloses the system of claim 2, wherein the LBS wireless communication analysis program extracts and displays information on the wireless network, a pseudo random noise code of a radio base station which transmits the LBS message and strength of the pseudo random noise code, from the LBS message (Figures 2-7, "221", col. 2, lines 40-67, col. 9, lines 50-67).

Referring to claim 8, Richton discloses the system of claim 7, wherein the wireless network is one out of a CDMA(Code Division multiple Access), GSM(Global system for Mobile

communication), CDMA2000 1X, 3X, EV-DO, EV-DV, WCDMA(Wideband CDMA) and PI(Portable Internet) (Figures 1-5).

Referring to claim 13, claim 13 defines an method reciting features analogous to the features of claim 2 (as rejected above). Thus, the combination of Richton and Well-known prior art discloses all elements of claims 13 (please see the rejection of claim 2 above).

Referring to claim 33, Richton disclose the storage medium of claim 16. Richton does not disclose the storage medium is one out of a floppy disc, a hard disc, a ZIP disc, a JAZ disc, a compact disc and a DVD(Digital Versatile Disc).

The examiner takes official notice of the fact that a hard disc, a ZIP disc, a JAZ disc, a compact disc and a DVD(Digital Versatile Disc) are well known concepts in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify Richton for the purpose of using a reliable storing medium.

Referring to claim 34, Richton discloses the system of claim 2, wherein the LBS wireless network analysis program analyzes and displays information on the GPS satellite (Figures 2-7, "221", col. 2,lines 40-67, col. 9,lines 50-67).

Richton does not disclose the information on the GPS satellites is more than one out of an azimuth angle, an elevation angle, a total number of the GPS satellites and an identification number of each satellite included in a "Provide GPS Acquisition" message.

The examiner takes official notice of the fact that GPS satellites being more than one out of an azimuth angle, an elevation angle, a total number of the GPS satellites and an identification number of each satellite included in a "Provide GPS Acquisition" message are well known concepts in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Richton as claimed for the purpose of providing a more efficient location service system.

Referring to claim 35, the combo of Richton and well known art disclose the system of claim 2, and further disclose the LBS wireless communication analysis program analyzes and displays information on the GPS satellite, wherein the information on the GPS satellite is more than one out of a total number of the GPS satellites and an identification number of each satellite included in a "Provide Pseudorange Measurement" message (Figures 2-7, "221", col. 2, lines 40-67, col. 9, lines 50-67).

Referring to claim 36, Richton discloses the storage medium of claim 22. Richton does not disclose each of the information on GPS satellite is distinctively indicated with different color, text or pattern on a screen displaying more than one concentric circles and 4 directional intersections, the concentric circles consecutively indicating angles ranging from 0 degree to 90 degrees.

The examiner takes official notice of the fact that detailed display of information on GPS satellite as described by the applicant is well known in the art.

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify Richton for the purpose of providing a precise and descriptive information on the display.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid, can be reached at (571) 272-7922. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER